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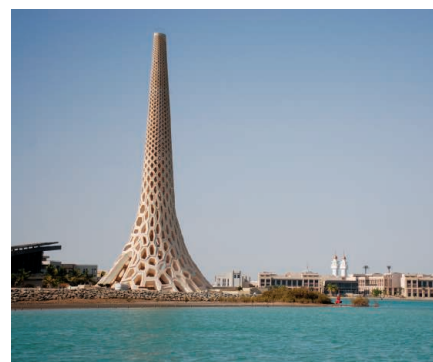
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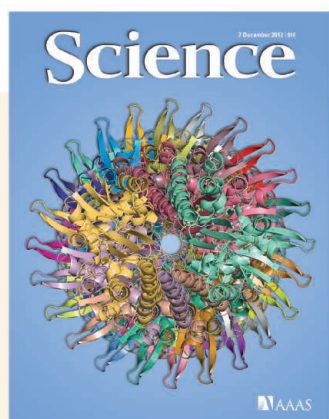
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**COVER**

End-on view of the atomic model of the bacterial actinlike ParM protein double-helical filament, generated from an electron microscopic reconstruction. A bipolar spindle of antiparallel ParM filaments pushes plasmids to the cell poles, constituting the simplest known apparatus for the segregation of genetic information. The loops on the outside of the 8- to 9-nanometer-thick filaments are involved in spindle formation. See page 1334.

Image: Jan Löwe

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A. P. Tøttrup et al.
A severe drought in the Horn of Africa delayed the spring arrival in Europe of two migratory species.

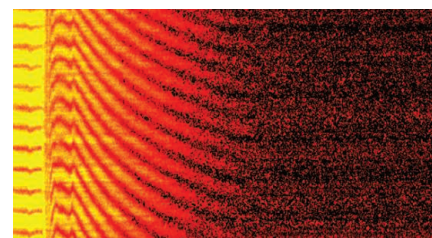
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- 1308 Crystal Structure of the Calcium Release-Activated Calcium Channel Orai**
X. Hou et al.
The unusual architecture of this ion-channel pore regulates the flow of calcium into cells.

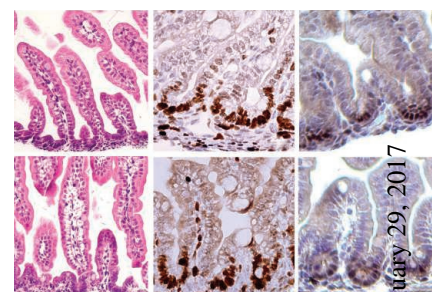
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- 1314 Binary Millisecond Pulsar Discovery via Gamma-Ray Pulsations**
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A computer-intensive search revealed gamma-ray pulsations from an exotic binary star system in data from the Fermi Telescope.
- 1317 Mapping Local Charge Recombination Heterogeneity by Multidimensional Nanospectroscopic Imaging**
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- 1321 Robust Photogeneration of H₂ in Water Using Semiconductor Nanocrystals and a Nickel Catalyst**
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- 1324 Taming of Fluoroform: Direct Nucleophilic Trifluoromethylation of Si, B, S, and C Centers**
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- 1348 Platelet Factor 4 and Duffy Antigen Required for Platelet Killing of *Plasmodium falciparum***
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The developmental stages of the sleeping sickness parasite can now be observed without the tsetse fly.
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- 1353 Acute Inflammation Initiates the Regenerative Response in the Adult Zebrafish Brain**
N. Kyritsis et al.
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- 1363 Evolution of an MCM Complex in Flies That Promotes Meiotic Crossovers by Blocking BLM Helicase**
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SCIENCEEXPRESS

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Publication Ahead of Print

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M. T. Zuber et al.

10.1126/science.1231507

The Crust of the Moon as Seen by GRAIL
M. A. Wieczorek et al.

10.1126/science.1231530

Ancient Igneous Intrusions and Early Expansion of the Moon Revealed by GRAIL Gravity Gradiometry

J. C. Andrews-Hanna et al.

10.1126/science.1231753

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Neural Basis of a Pollinator's Buffet: Olfactory Specialization and Learning in *Manduca sexta*
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10.1126/science.1225483

Suppression of Oxidative Stress by β -Hydroxybutyrate, an Endogenous Histone Deacetylase Inhibitor
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10.1126/science.1227166

JNK Expression by Macrophages Promotes Obesity-Induced Insulin Resistance and Inflammation

M. S. Han et al.

10.1126/science.1227568

Germline DNA Demethylation Dynamics and Imprint Erasure Through 5-Hydroxymethylcytosine

J. A. Hackett et al.

10.1126/science.1229277

SCIENCE NOW

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The First Signs of Ancient Life on Mars?

The Curiosity rover has detected organic matter, but it may never have been alive.

<http://scim.ag/Life-Mars>

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The anterior insula may make us less suspicious as we age.

http://scim.ag/Brain_Region

Read My Hips

Intense emotions are easier to read in the body than in the face.

http://scim.ag/Intense_Emotions

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The Signal Transduction Knowledge Environment

4 December issue: <http://scim.ag/ss120412>

RESEARCH ARTICLE: RNF4-Dependent Hybrid SUMO-Ubiquitin Chains Are Signals for RAP80 and Thereby Mediate the Recruitment of BRCA1 to Sites of DNA Damage

C. M. Guzzo et al.

DNA repair proteins find sites of damage marked by hybrid SUMO-ubiquitin chains.

RESEARCH ARTICLE: G Protein-Coupled Receptor-Mediated Activation of p110 β by G β Is Required for Cellular Transformation and Invasiveness

H. A. Dbouk et al.

Loss of the phosphatase PTPN22 enhances the functions of both effector and regulatory T cells.

PERSPECTIVE: Cdc42 Oscillations in Yeasts

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Oscillations in the localization of active Cdc42 govern polarized cell growth in yeasts.

PRESENTATION: SCF-Mediated Degradation of p100 (NF- κ B2): Mechanisms and Relevance in Multiple Myeloma

L. Busino et al.

Degradation of an inhibitor of noncanonical NF- κ B signaling promotes cell survival.

SCIENCE TRANSLATIONAL MEDICINE

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Integrating Medicine and Science

5 December issue: <http://scim.ag/stm120512>

FOCUS: The Goldilocks Effect

M. Boothby and C. L. Williams

RESEARCH ARTICLE: Overexpression of Methyl-CpG Binding Protein 2 Impairs T_H1 Responses

T. Yang et al.

MECP2 gene duplication causes immune dysregulation by suppressing IFN- γ production from T helper cells.

FOCUS: Creating a Space for Innovative Device Development

M. McMurry-Heath and M. A. Hamburg

The FDA announces a nonprofit partnership to advance regulatory science for medical technology development.

RESEARCH ARTICLE: α -Synuclein-Induced Down-Regulation of Nurr1 Disrupts GDNF Signaling in Nigral Dopamine Neurons

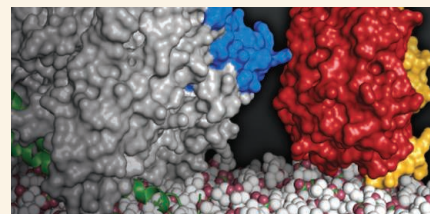
M. Decressac et al.

Nurr1 mediates protection of dopamine neurons by GDNF in response to α -synuclein-mediated toxicity.

RESEARCH ARTICLE: Decreased Tonic Inhibition in Cerebellar Granule Cells Causes Motor Dysfunction in a Mouse Model of Angelman Syndrome

K. Egawa et al.

Ube3a deficiency causes decreased cerebellar tonic inhibition by preventing degradation of GAT1 in Angelman syndrome.



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M. Price

Psychologists share tips for figuring out what is sapping your enthusiasm—and how to get it back.

Taken for Granted: How Not to Attract Minorities to STEM

B. L. Benderly

Research shows that large admissions preferences stymie studies in science and technical subjects.

myIDP: What Do You Care About?

B. Lindstaedt et al.

Analyzing and prioritizing your deeply held values are crucial steps in choosing a scientific career.

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